



# higher education & training

Department:  
Higher Education and Training  
**REPUBLIC OF SOUTH AFRICA**

## **GENERAL EDUCATION AND TRAINING CERTIFICATE**

### **NQF LEVEL 1**

### **AET LEVEL 4 SITE-BASED ASSESSMENT**

**LEARNING AREA : MATHEMATICS AND  
MATHEMATICAL SCIENCES**

**CODE : MMSC4**

**TASK : ASSIGNMENT**

**TIME : TWO WEEKS**

**MARKS : 50**

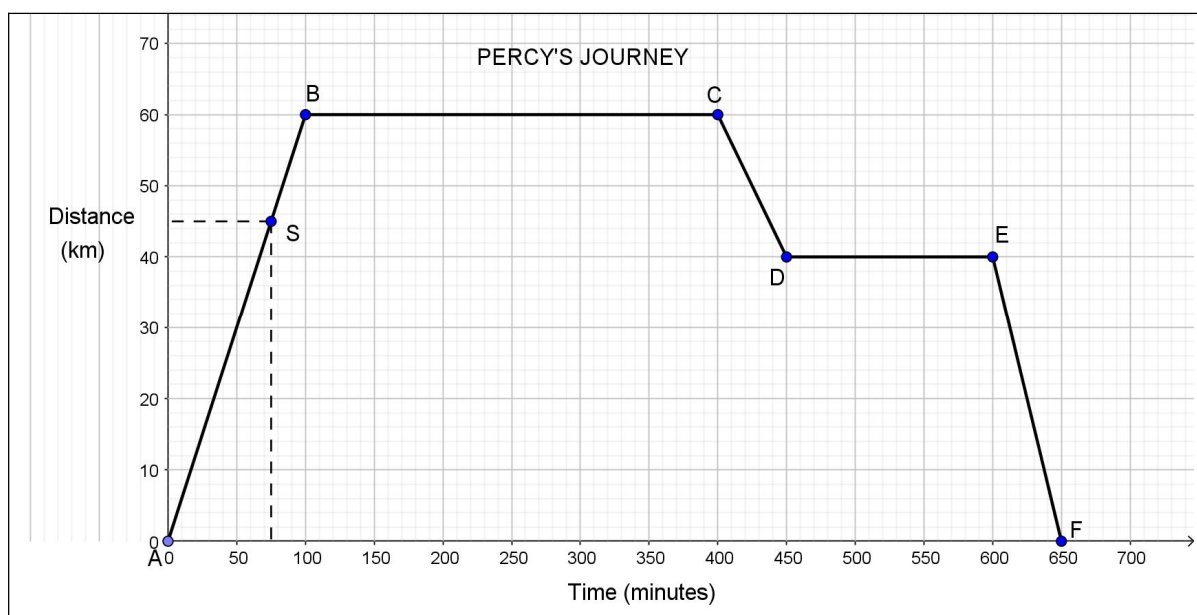
**This assessment task consists of 5 pages and an Annexure.**

## INSTRUCTIONS AND INFORMATION

1. Answer ALL the questions in ANSWER BOOK.
2. Read ALL the questions carefully.
3. Calculators may be used.
4. Clearly show calculations, diagrams, graphs, et cetera which you have used in determining the answers,
5. Number the answers according to the numbering system used in this question paper.
6. QUESTION 2.1.3 and QUESTION 3.1.4 must be answered on the ANNEXURE provided and be handed with the answer book.

## QUESTION 1

- 1.1 Percy cycles at a constant speed from his home (Point A) to town (Point B). The graph below represents his journey to town and back home.



- 1.1.1 Determine the distance from Percy's home to town. (1)
- 1.1.2 Write down the co-ordinates of point S. (2)
- 1.1.3 Between which two points did he stop cycling for a longer time? (1)
- 1.1.4 Hence calculate the time in hours for which he stopped cycling for the longest period. (3)
- 1.1.5 Calculate the speed in  $km/h$  at which Percy travelled from home to town.  
Use formula:  $Speed = \frac{Distance}{Time}$  (3)

- 1.1.6 He leaves home at 06:00 in the morning and cycles to town. Calculate the time he arrived back home. (4)
- 1.1.7 Percy decided to use a car the next day and drives at an average speed of 100km/h. How long will it take him to reach town? Leave your answer in minutes. (4)
- [18]

## QUESTION 2

- 2.1 Steven wants to hire a DVD for 7 to 14 days. He goes to two shops. The information below shows the rates of the two shops.

Shop A	Shop B
Deposit: R250	Deposit: R350
Daily rates: R25	Daily rates: R15

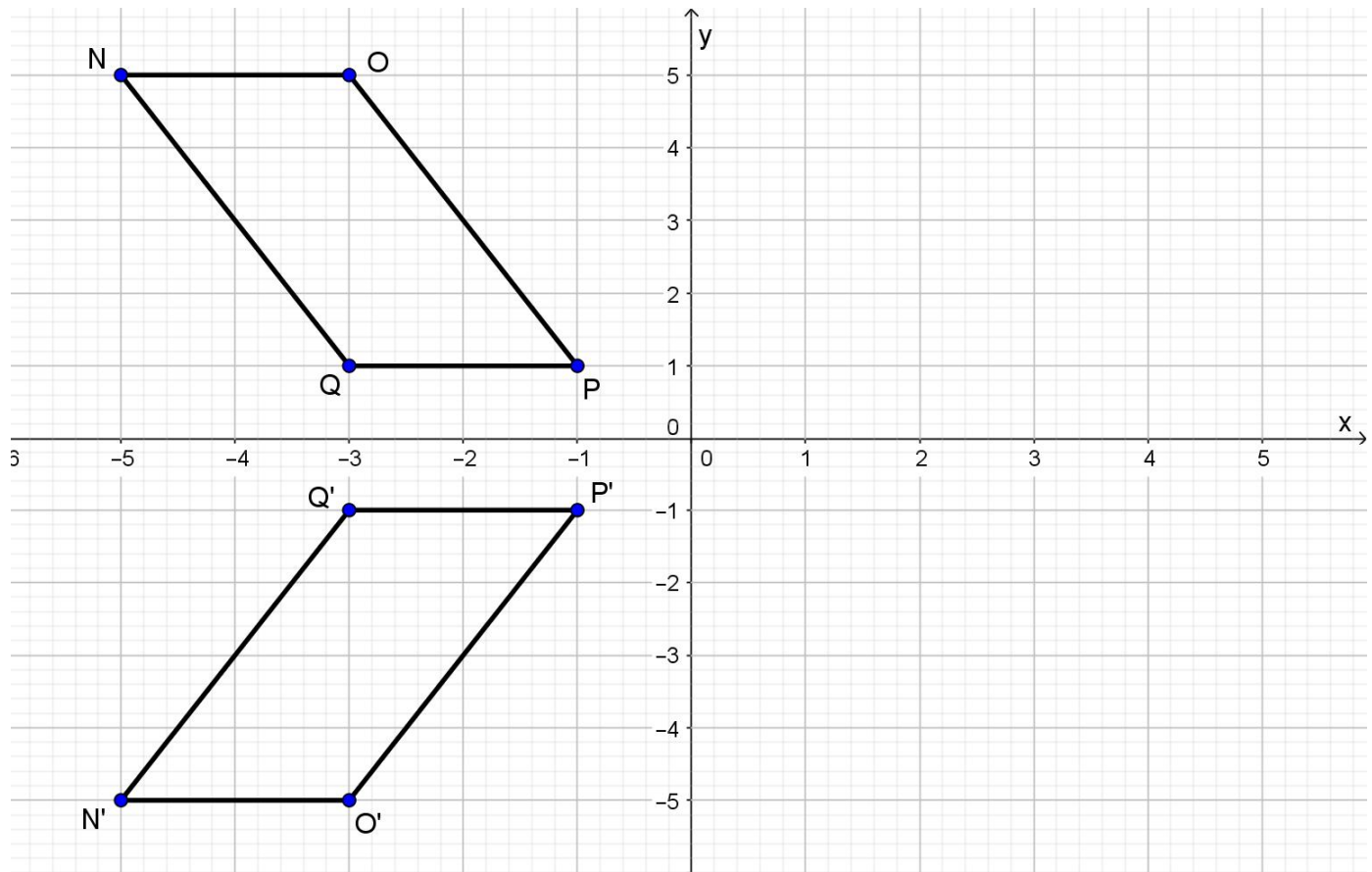


- 2.1.1 Write down equations for calculating the cost from both shops in the form of:  $C = \dots + \dots \times n$ , where  $C$  is the cost and  $n$  are number of days. (4)
- 2.1.2 The table below shows the relationship between the number of rental days and the cost of the DVD. Redraw the table and complete the missing information. (4)
- | Days   | 0   | 2   | 6 | 8 | 10 | 14 |
|--------|-----|-----|---|---|----|----|
| Shop A | 250 | 300 |   |   |    |    |
| Shop B | 350 | 380 |   |   |    |    |
- 2.1.3 Use the attached Annexure to draw two graphs on the same set of axes. The first graph must show the cost of renting from shop A and the number of days. The second graph must show the cost of renting from shop B and the number of days. Clearly label each graph. (5)
- 2.1.4 Use dotted lines and to show the point where the cost is the same for both shops. Plot this point on your graph and label this as point C. (2)

- 2.1.5 Write down the co-ordinates of point C? (2)
- 2.1.6 Which shop should Steven choose if needs to hire the DVD for 14 days?  
Motive your answer. (2)
- [19]

### QUESTION 3

- 3.1 Quadrilateral  $NOPQ$  lies in the second quadrant. The transformed quadrilateral  $N'O'P'Q'$  lies in the third quadrant.

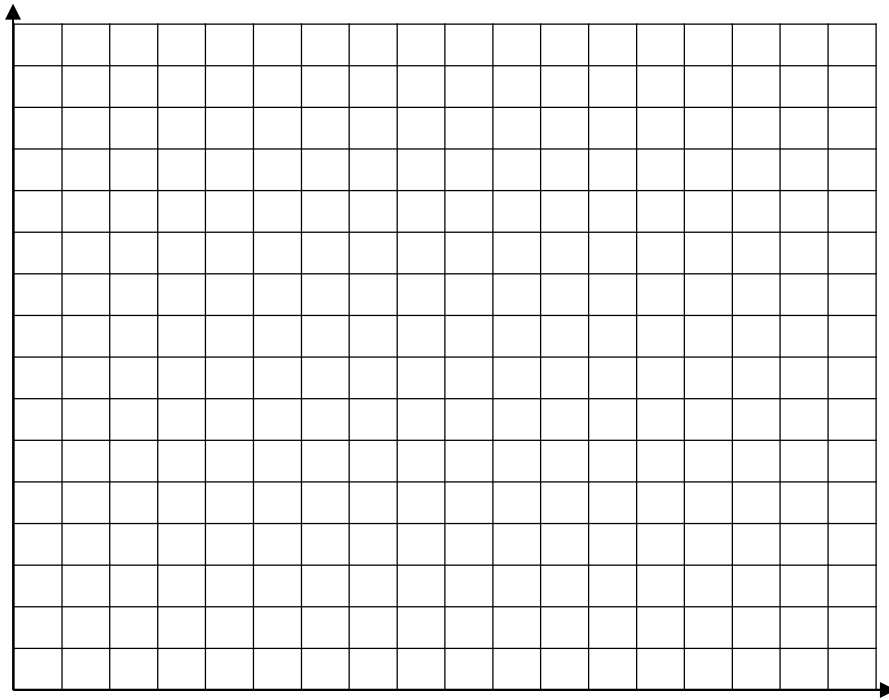


- 3.1.1 What type of a quadrilateral is  $NOPQ$ ? (1)
- 3.1.2 Write down the co-ordinates for each point of quadrilateral  $NOPQ$ . (4)
- 3.1.3 Describe the transformation from quadrilateral  $NOPQ$  to quadrilateral  $N'O'P'Q'$ . (2)
- 3.1.4 Draw the quadrilateral and name it  $N''O''P''Q''$  which is the result of shifting  $N'O'P'Q'$  5 units to the right. (2)
- 3.1.5 Calculate the perimeter of  $NOPQ$ . Round off the answer correct to THREE decimal places. (4)
- [13]

**TOTAL: 50**

NAME AND SURNAME:

### QUESTION 2.1.3



### QUESTION 3.1.4

